

ASSESSING RISKS TO ENERGY AND CHEMICAL TRANSPORTATION & MANUFACTURING INFRASTRUCTURE

Needs and opportunities identified by Gulf States in the Wetlands Restoration and Water Quality White Papers:

- ◆ “Developing a collaborative Gulf-coast wide effort in identifying watershed/ecosystem based restoration and conservation priorities.” (WR)
- ◆ “Improving scientific understanding and encouraging the use of information on projected relative sea-level rise and subsidence will help prioritize conservation (restoration, enhancement and acquisition) projects.” (WR)
- ◆ “A better understanding of potential water quality effects of the increasing coastal population densities and the resulting land use changes is needed to protect existing aquatic life and shellfish resources and to reduce potential effects on human health associated with water-based activities” (WQ)
- ◆ “Tools to relate land use activities and habitat degradation/loss to water quality problems” (WQ)
- ◆ “Assist in developing modeling tools to relate watershed wide land use activities to water quality problems” (WQ)

Federal Response: Through a partnership between Federal, state, and local agencies, the Federal Workgroup proposes to identify potential spill risks from coastal infrastructure as a result of land loss, natural hazards, and human activities.

A pilot study sited in the Timbalier/Terrebonne estuarine system was conducted to test appropriate approaches using available geospatial data and spatial analysis techniques to create a model that integrates risks to coastal oil and gas infrastructure with consequences to coastal natural resources. The result of the study proved that the work was feasible and useful: planners and managers will be able to use the results to identify zones of relative risk to oil production and transportation infrastructure in the Louisiana coastal zone.

Through a partnership similar to that discussed above, the Federal agencies would lead the effort to expand the spatial coverage of the model to include other areas of the Gulf Coast that are experiencing rapid land loss (primarily Louisiana and SE Texas). The expanded result will be useful when prioritizing sites for wetland restoration. Using model outputs, construction projects could be strategically sited to reduce risk of storm and navigational damage to vital infrastructure, which in turn could reduce the likelihood of oil spill damages, thus protecting energy damping and other functions that restored habitats provide, as well as preserving the intrinsic value of wetland ecosystems to fish and wildlife.

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Federal Workgroup Co-leads: NOAA, DOI (MMS)

Other partners: Louisiana Department of Natural Resources, Louisiana Office of the Governor's Oil Spill Coordinator's Office (LOSCO), Texas General Land Office

This Federal Response Proposal represents an initial project idea from the 13 agencies represented on the Federal Workgroup, in response to the Gulf State Alliance white papers; it is meant to stimulate discussion, among the Gulf State Alliance and the Federal Workgroup, as they work toward the development of a draft Gulf Plan of Action. Implementation of this project idea is subject to further evaluation and the availability of funding.